

Promoter 01

-1161 CACAAACATA CACTCAAAAT CCAGACTCAC ATCTACTCAA TTATGCAACT  
 -1111 TCATCATGAA AACATCAAAA ACAGTCAAAG TAACAAAATC AAGTCAGATT  
 -1061 CAGCACACAA AGCCAGTAAA GATAGAAAAT TTAACGAACG CTCATGCTAA  
 -1011 GCTGCGCAAA ATACTTCCTA ATCAAAACAG TAACAACGAG TAATTAGCAA  
 - 961 AATCCGAGCA GAAAACTCTC ACCCACCTCC GAAATTCACG TCTTCACTAA  
 - 911 AATTTTCGAA AGGAATCGAT CAATACCAAC CCATTACACA AAATACATAA  
 - 861 TCAAAATGGC GAGAATCGTA CCTGGAAACT TTGCTTCAAG TCGCAGAGAG  
 - 811 AGGAAAAGGA AGATCGTGGA GAAAGGGGTT TAGGGTTTAA GCTCAGACTT  
 - 761 CTATTGGAGT AAATGGGACG GTGTCACATT TTCCGTTTTG GAAATGAACT  
 - 711 TTGGGCTCAC GTTATGGGCT ATTAGATATT TGATGGGCTT TCTAGTAAAT  
 - 661 ACAATATAAG TTATTGGGCT TAGTTTAAAT AAGCCCATGT TGGAAATATT  
 - 611 TGACACATGT CTTGGCTACT AGTGCTAAAC ATGCAACCGA ACAGTTGTCG  
 - 561 AGACAAGTCG CAGCATATAC AATGGATCAA ACACGCCTAG TGTCGCCGCG  
 - 511 TCTCGCTCAT GTGTCACCTT GTTTCCTCGT TTTTTTTTAA TTTTTCATAA  
 - 461 GTTCTTTTGT TTTATCTTCA ATACAAATTT TTGGCTGTAT CTTGCAAACT  
 - 411 CTTCGATCAT ATCGCCAATA TACGTGAACA CTGGTGATCT AATTTGTTGT  
 - 361 GTTAATTGTT AAATTTAGAT TCTATTCTCC GGTTTAAAAG TGAATTATAT  
 - 311 GTATCATGGT TAAAACATTG TAAGTAAGAT GATAATAAAA TGATAAATTT  
 - 261 AGTTGATGGA TAACGTGAAG CAAAAAATGA GATAGATACA TTTGATTTTG  
 - 211 TCGTATTTTG ACATATGCGG AGAGTGAGCT ACGCGCATGA AGATCAAGAG  
 - 161 ACACTTGCTC GAGCTCACAG AGTGACGTGT AAAAAGCTTA GACTGAAGTC  
 - 111 CCCATGCAAA CCTAATCCTA CGTGGCTCAA ACCACGAGCT CACTTGACAA  
 - 61 TATATAAACT CCTCCTAAGT CCCGTTCTCT TCATCCATCT CTCACAACAA  
 - 11 ACAAAAAG -4  
  
 - 3 AAAATG

Figure 1

Promoter 03

-1148 CAAGAGTGTA AAACGTACCG ATCAAATGTC TTTATAAAAA AAACGTGTTG  
-1098 ATGTTGTTCT GTGAATACAA TTAGTTCTGG TTAACAGCTG GTCGACCATT  
-1048 TTCTGATGAG AATTTATGTA AGGCCATTGC TCTGGTGTG AGAAGGTTTA  
- 998 GTTTGGTTCA AGCTAACCGT GGTAGAAAG TTAGAATATA ATGTGTTTCT  
- 948 TGATCAGTGA TATCGATCGG ATTTGTATTA TTCATATTGT TTACTCTTTG  
- 898 AGTAATTCAT AGTGGTAACT CTTTTTTTTT TTTTTTTTTT TTCATATTGG  
- 848 TAACTCTTTG AAATGAAAAA CATAGCTAAG AATTGCTAGC TTTGATTTAG  
- 798 TCGAGACGTA CGAACTCTCG ATTTTGGTTT TTGATTGTG GGTGTAAAC  
- 748 TCTCGATATT CATAACTCGT AAGATTTTGT ACGTATCATC TTCTTATTCT  
- 698 CTTTCATCGCT CTGTTTTCAA TTTTATGTCA AAACATGGTT TTGGTAATTT  
- 648 CTTTTACTCC TACTTCACGG TTTGAGTTAT AATTTTTTTG GTAAACCCTT  
- 598 AACCACGAGT TTTGATGTAT TTTGACACCT CTAATTATGT GTGTATACGT  
- 548 ACACATATAA TTCGGTATTT TCTTAACATA TATATCCCTC ATAAAAATTT  
- 498 CTTACATGCA TTGTTCGTGA GTGACCCGTT AATATATATA TTGATAGATA  
- 448 CTCTTATAAA ATTATATTCT AAATTTTCTA TTAAGCTGGC ACAACTATAT  
- 398 TTCCAACATC ACTAGCTACC ATCAAAGAT TGAATTCTCA TCTTACTCGA  
- 348 TTGAAACCAA ATTAACATAG GGTTTTTTATT TAAATAAAAG TTTAACCTTC  
- 298 TTTTAAAAA ATTGTTTATA GTGTCATGTC AGAACAAGAG CTACAAATCA  
- 248 CACATAGCAT GCATAAGCGG AGCTATGATG AGTGGTATTG TTTTGTTTCGT  
- 198 CACTTGTCAC TCTTTTCCAA CACATAATCC CGACAACAAC GTAAGAGCAT  
- 148 CTCTCTCTCT CCACACACAC TCATGCATGC ATGCATTCTT ACACGTGATT  
- 98 GCCATGCAA TCTCCTTTCT CACCTATAAA TACAAACCAA CCCTTCACTA  
- 48 CACTCTTCAC TCAAACCAA ACAAGAAAAC ATACACAAAT AGCAAAAC -1

1 ATGGCTA

Figure 2

Promoter 04

-1037 CAAACCAT TG TTTACACGTC AATTTGAATT GCGTCAAATA TTCGACTGGA  
 - 987 ATCCTACAAC ATATTTCTTC TATTATATCA ATAGGAAGCA ACGAACGTTC  
 - 937 ACATGAAGCC ATGCAAAAAC AAATTGAGAA AAAAAATCAG AAAATTTATG  
 - 887 ACAAGTGGTC TTGCTTCTTA TACTACGTCG TGAATGGATG GTAATAAACA  
 - 837 ATTAAATGTT ACCTCTAGTT TTTTTTTTTT GAGAGAATGG TTTTATCCG  
 - 787 TATATGGCTT ATTACAAGTT TCCTCCTTTT TCGAGTTTGG TTTGAGGTCT  
 - 737 ATATTGAAGA TGAGATACTA AAAATTGAGG TAAATTCTTT AGTGTGAAGG  
 - 687 AAAATTAGTA AATACGATAC GTTTGGAATT GTTTACTACT AAAAAAAAAA  
 - 637 TTGTTTTAGA CCAAGCCAGT CCGACAAAAA GCGGTGTGAA TCATAAGAAG  
 - 587 TATCACATGA TGCTAGACAT AAAAGATTTT TCAAACATGA CAAACAAAT  
 - 537 TGTGAGTGTC TTAGTCATGC CATTTGAAGT AGAACGAAAC TTAGTGATGA  
 - 487 GACACGTAAC ATCAGTGAGA ATCAAGATCT AACTTCGGAC TTATCGTACG  
 - 437 TACCACGTCC ACCTAAGTGT TATCCATATC TACTACATGT CTATCTTCAT  
 - 387 TCAATTTTTT TTTTGCATTA ACTTGTAAC ATAGTGCATA ATAATTAGAA  
 - 337 TCAAGATTTG AATCCAATTC GCTTACTAAA TCCTAAATGT TAAAGCATA  
 - 287 CATGTTTTTC AAATCCTACT TTTAGGTGCT AAGTTTTTTT TCTAAGGTAG  
 - 237 TTAGAGATTG TTAGATTTTA TATCATTGAA CTGATCATCA GTCTCTATAC  
 - 187 TAACTTCTAG ATCTCATTGA ATGTTTACTC AATTTTTTTT AATTTTTTGT  
 - 137 TTGGATAATC GTCTGCTCGT GGTTTTGATG CGTACGAACA CTCGTCACCA  
 - 87 TGCATGTCAA GCTCTCCTTC CTATATAAAC TAAACCACC CATTATTGTC  
 - 37 CTCAAAAACA AACACATCAA CAAAACAACA AG -6  
  
 - 5 AAAAAATG

Figure 3

Promoter 06

-1413 CTAAACGAGT AAAGTTTAGC ACGATTGAGA CCACACTGAC CCATAGCAGT  
 -1363 CCAATGAGCT ACGGAAGGCC TAGGGCTTGA GGCTTGATGA GCGCGTGGTG  
 -1313 GAATAGCGTT TGAATCTAAA GTTCGGTTTG GTACGACTTG TAATATGAAA  
 -1263 TAATAATGTA CAAAGAAGTT CTACGCTTAA GGGAAGTGTG TTGTTTTGAG  
 -1213 CTTTGTATTA GGACGTCTAG TGTACAACAA CGAACGTCGT GTATAAGCGA  
 -1163 TCGTTGACTC TGCACATGTA ACTCTTTCCT GAATAAAAAA TCTTTAAGTC  
 -1113 TTTAATTTCT ACATCTTTTA GGATTATATA AACGTTACTA TATAAATAAA  
 -1063 AAAGAAAAAA AAATCAGTTC ACTAACATGC GAGACTTTGG GCTAAATATA  
 -1013 GTGATTCCAA AGAAAATGAG TTATAATATT AATTAATATA AAGCTCATTT  
 - 963 TCTTTGGAAT ATCGTTATAA GAATATTTTA ACTTGGATAT AACTGGGCTT  
 - 913 ACGCCATTTG CATCTCGAGG ATTTTTTGTG TTTGTTTTTG TTTTTTTAAT  
 - 863 ACATTCTCGC ACTTACACAC TAAAAATCAT AATGATCTTC TTAATTCTTT  
 - 813 AGCGGAACCA CCAATTAATC TTTTATTAA GAACTTTATT ACTTATTTCA  
 - 763 CTTATTTGTG CATACGTGCA TTATTTTGGC AGTAACAAAT ATCGCGTTAT  
 - 713 ATATACTGAA ATCCGGACGC ATTAATAATA GGGATATGAT TATATGAACC  
 - 663 ACTATCTAGC TTTGGTAGAA ACCCAATTAT AATCAAATAA TTTACCATTA  
 - 613 TTGAATAAAT TAGGCTATAT AAGTTCATTA ATAGATGCTA TAGGTTTTTC  
 - 563 TTACAAGGCA CACATTTGAT TGTTATTTTC TTTCATATAC ACTGAATGTA  
 - 513 CATGTGTACA CTTGGCATAC ATGGCAAGAT TATGTGTTAC AATATAGACT  
 - 463 GTGCCATTGC CATGCAATGT GACTCCTGTG GCCATTTCTA TCACAATGTG  
 - 413 TCAATCTTGG AGTATCCGTT GTTTATCCTC TAATTTACTG ATTAATTTAT  
 - 363 GAACATGTAT AATTATTTAT ATCATATGAT CTCGTAAGAT ATCTTAGCAT  
 - 313 TTTCCACCAT ATGTTATTAG TAAATCATCT AGATGGATTG ATGTAAATAG  
 - 263 GAAAGTTAAA TTAACACACC AAAAAAGTAA CTGATTAAAA GCATACAACT  
 - 213 TAATATTCAG ATTATGGTAA CTAAATCAGT CTCATGCAAA CTCCAAAAAA  
 - 163 TTATACGAGT CACAACCTCT GATTTTTTTC CGGTAAACA AAATACATAT  
 - 113 TTTCATTTGT ATGCAACCAG AATAAAACAC TAACTATCTC CTTTAAATAC  
 - 63 CATTTTCCCT ACGAGTCTAC GACGCTCTCT AAACCTCTTA TACAAAACAA  
 - 13 AACACACCC -5  
  
 - 4 AAATATG

Figure 4

Promoter 07

-1118 GATCCGAAAA GTAGAGTTTC GTGGATCTGA TAATTGGAGA AGAGAGAACG  
 -1068 AGCTGAAACC CTAAATTCGG ATAAAGTCTG CAACTTCTGT TGTTTCGGTG  
 -1018 GCGAGAACAA AAATAATGAG AGGAAGAGGA AAATATCGTC GTTTTTGTCT  
 - 968 CACAGTCTCT TTAGCAGCTT TTCTTTAGAT ATTTATTTTA TTTTTCCTAT  
 - 918 GGATAGAGAG AGCTAGGCAT TCCGGTTATT TGGAGATTTT GGAATTTCAA  
 - 868 TTTTGCGGTT TGGTATTTTA TTTTATTTTA TCAATTTGAA CGAAACAGAG  
 - 818 CTTTGTTTTG GTTACGATGC GGTGGATTTT GGTTCGGTTT AGAGTGATAT  
 - 768 ATATTTGGTA CCAAATTAAA CCAAGATTCTG TTTTCGGTAA AAACAAAATT  
 - 718 TGATTTTTTA GCATTTTTTG AAAAATTAGT GTTATATATA TGAGATTTCT  
 - 668 TAATCAAAAT CTCACCTTTA TCCGATTTAG TGGTAGTTCA TAAAGTGGTT  
 - 618 TCATGTATAT GATACCTGAA TAACCAACAT ATGTATTTTA AGAGACACTT  
 - 568 GGAATAATAA TTCTAAATAT CCTAACTACT CGTGTCCGTA TGTTTTGTCA  
 - 518 CGGTGAAACG TGAGAGGACT AGTTTTTGTC ACCCGTCCAT AACATTCTTA  
 - 468 GACATACATT ACTTTGGGAG TGAAAAACAT TAAGCTTATC TTTATCCATA  
 - 418 TATTGTCTTA CCATCAATAG ACAATATCCA ATGGACCGGT GACCTGCGTG  
 - 368 TATAAGTAAT TTTTCAAGAT GCTAAACTT TTATGTATTT CAGAATTAAC  
 - 318 CTCCAAAAC ATTTATTGAC ACACTACTAC TCTTTCGTA TTGACTCTCA  
 - 268 ACTAGTCATT TCAAAATAAT TGACATGTCA GAACATGAGT TACACATGGT  
 - 218 TGCATATTGC AAGTAGACGC GGAAACTTGT CACTTCCTTT ACATTTGAGT  
 - 168 TTCCAACACC TAATCACGAC AACAATCATA TAGCTCTCGC ATACAAACAA  
 - 118 ACATATGCAT GTATTCTTAC ACGTGAAGTC CATGCAAGTC TCTTTTCTCA  
 - 68 CCTATAAATA CCAACCACAC CTCACCACA TTCTTCACTC GAACCAAAAC  
 - 18 ATACACACAT AG -7  
  
 - 6 CAAAAAATG

Figure 5

Promoter 09

- 975 TCAGAAAGAG AAGTGAGCTA CCTGCAGTGT CCTCTGTTTT GTCGATGAAG  
 - 925 GATTTTTTAGA TTGGTATGTG ATGAAGTACA ACGAGCTGAT GCCTGCGTTG  
 - 875 ATGGCTATCT TCACCAAAAG TCGTGTTTGT TATGAAGCAC AACGAGCTGG  
 - 825 TGCCTACGTT GATGGCTATA TTCACCAAG GTCGTGTTTC ATAGATCAGA  
 - 775 AGGCACACCT ACAACAATGA GCAGTGCCAA GGTTTGTTCCT TATTTTGTG  
 - 725 TTGTCAGTTT TAGATTTCTA GATGAATCTT ATGATGTGAT AATGGAAAAA  
 - 675 CGAAAGAAAA GCTTTTGTGA AAGTATCTAT GAGTGATATC ATGATATGTC  
 - 625 AAAAATGTTG CATGGATACA TTGATTCTTT AGTACTTGTT ACGAGCTGCT  
 - 575 AAGAGAGTCG TGTCAAGTTC AATACTTTTC CTTGTCATTT AACATAATTG  
 - 525 CTTGTCTGTT TGGATTCTAT TGTGCGGAAG TTATGATTTA TATTTTCAGA  
 - 475 TTCATATTTT CAATTAGGAA GCTTTAGTTG GAATCAAAGT GGATGACCCT  
 - 425 GATTGAGGAT TTTAATGATC GTTGTGAGAA CCTTTCTTGT AGTTAGTTGG  
 - 375 TGGATTGTAA AAAAATTATA TGTATTTAAC TCTTGATTGA GAGTCAGAAG  
 - 325 TTGGAAAAAT GAATTAAGAG GTTTTCGAAT AAGAGATCAC AGTTATAGTA  
 - 275 TAGTATTAAT TGGATATCAC AATCTATTCA TAATATTAGC TAGTTAGATA  
 - 225 AAATTGTGTT TGATCTTGGC AAGAGGTGTT AAAATAGTAT CATGTTGACA  
 - 175 TGTGGTATG ACTATTAGTC GTAATTTAAG CTTATGTATA TTTCTTGTA  
 - 125 GAAATGTTCA TGTATCATAA TAAATACAAG TGTATCGAGT TTTTGTATAT  
 - 75 ATAGAGGTCT ATGATTTGGG AAGAAGAACA CAACATAACT CACCACAAAC  
 - 25 ACAATCTAAT CCAAAAAATC AAAAG -1

1 ATGAAT

Figure 6

Promoter 13

-1121 TGACACGCAA CAACCAAAGC CAAAAGGGTG CGTTACCATT AATTCAGGGA  
 -1071 AAGCGAAATA AACCCAAATC TCTCTTCTAA CGAAGTAACA ACTCACCCAC  
 -1021 TTCTCACATT GATTCACTCC TTTCCAGTTT TTACATATAG CCTTCGTTCA  
 - 971 TCAATCACCT TAAGCAAATT GCAATCACAA AAAAAAAAAA GTACAGTACT  
 - 921 TAGCAAAATT TTAAGTTTTT GTTATTTCCA CGGCAACTTA GCAAATATGC  
 - 871 ACCACATATT GACATTAGCT AATATACAAC ACATGTTTTT TTAGAAATGT  
 - 821 ACAAGCATTA ACAAATATCC AACACAAAAT GACATGATCG TAGATGATTA  
 - 771 AGATAATTCTG ATCCCTATAA CTAATAGTTT CCAAAACTTC TGCTGACTTT  
 - 721 TCTCTCGACA GCGATGGTAA GAAGAAGGTA CAAAGTTTTG AAGCCCGAAT  
 - 671 ATAACAAAAG GACAGAAAGC TTTTAGTTTT CTAGATAAGA TCTTAGCTTT  
 - 621 GGTCACGTAA AAAAAATTAA AAGTGAATTG GTTAACAATA TAGGAGTACT  
 - 571 TTGTATCCAA AGGTCATTGC AATAAATAAA CACTTAAGTA CTCTGTAGTC  
 - 521 ACACATCTCT AGGAGCTTAA TATTGGATAA TCGCTTGTAG ACTTGTATTA  
 - 471 AAATATTTAG TAGGTCAAAT CCCTATCTTC TACAGTTTCT ACTCTCGTCC  
 - 421 GTACAGACTA CAGACACTAT GCTATAGTTT TGTGTTGAAT TCTACAAAGT  
 - 371 ACAAATTCTT CTTTCGGTGC CAATAACAAA TAAACACAAT TCTCAAATTA  
 - 321 CATTTGTCTA AATTTTTATT TGATTCGGTA TAAATGTAAC GCTATGTTGG  
 - 271 GAATCATATG ATAAATCCAG ATTAAGACTT CTTATTTAAT TTATTTTTGT  
 - 221 ATATATAAAA TATAATATCC AACCATAAAG TTTTTTTACC GATCGATGAT  
 - 171 AATGTGAATC CAAATATTTT AACAGGATGA TAAATAATTG ATGTGGCTTT  
 - 121 TATAACCGCA GCAATTCTGG CGTGACTCTC TCCGCAGCAT TTATTTTTCT  
 - 71 CTCTATAAAT TAAAAACATT ACTTACTCTT TCTCTCTTCC ACTTAACTCA  
 - 21 TATCAACCTT CGCCGGA -5  
  
 - 4 AATAATG

Figure 7

-1056 ATCTCTGCAA ATCAAACCTT ATTATTAAGC TACATTTACA TAGTGTCTTT  
 -1006 ATAATTCTCA TGACATAGCA ACATTATTAA ACGACAACTT TCTAGCTTCA  
 - 956 TTTAAAATGG AAAATCACAT AACACTCACA TTAACATATAC TAACATAACA  
 - 906 CTCACATTAC CGACTAGCAT ATAAATGGAT ATTGATATAA CAATAATCCC  
 - 856 CCAAATTTAT GTCTATTTTG TTCATTATGC AAATGTCCCA AAATGATATA  
 - 806 TCTTGGAAG TACTAACCGG AGACGAGGGT CGAGGTATAG AAGTGATTTG  
 - 756 GTCGAACCGA AATGAGGAAC CCGGGTTTGG ACACCAGGAG CATTTTGGTA  
 - 706 ATCATCCAAA TCAGGGTCAT AGTACAACAT CATTCGATCG CTGAAGCACC  
 - 656 TGGTGAAGGG AGACAATAAC ACTGCTGCAT CGAACCATAG CCTAAACCAT  
 - 606 CCACCACTCT TCTTATGAAT CGGATATAAC CAGCTGCTAC ACCAGACACT  
 - 556 ACTTGGCTTG TATTCTCTGT CCAGCCGTAC CTCTAGCTGG TTACCTCCGT  
 - 506 TTCCTGGAAC CAGAATCAAA GGGTACACGT TGCTACCCAC AGCTTGACAC  
 - 456 ATCGAGGTCA TCGTCACCAC AACGAGTATC GCTATGACTA CCGAATAATG  
 - 406 TGAAGATATT TTTTTCATTT TCGTTCCTAAG AAACAGACTC TCATGGTCAT  
 - 356 GGATCTATGC AGAAAGCTGG AGATTTGAAG AAAAAGGTCC ATTGAATTTG  
 - 306 AAAACAGAG TAGTATCTTA AAACGTAAGG CTTAAGATAA GTAGTATATG  
 - 256 GTGGATATGG AACCCGCGTA ATCATCTAGA GGCTCTACAA ATATTTATTT  
 - 206 TGTATTTTCT TCTTATTTTG TATTTGCCTA CGTGGCATT TACAACGTAT  
 - 156 TTAAGTTGAA ACCAGATTTA TGGCCCAATG GGTCGGGTCG ACCCGACCGA  
 - 106 TTTTAACTG CGCTCCTAAC TAAAAAAAAG TCAAAACCCT TTGAAAAACC  
 - 56 TAAAAACGCA ATTTGCTTCG TCGTCTCTCA TCTCTTTCTC TTTCTCCG -9  
  
 - 8 TCGCCACCATG

Figure 8



Promoter 15-2

-1074 GTAAGTCGTT CTCTAATCTT CCATGCCAAT TTGCTCGGTT AAAACCAGAC  
 -1024 TGGTTGGACT GAAAAATCGG TTTTAATTAA TTGAGTTGTG CTTATGAGGT  
 - 974 CTATTGGTTT ATTTTAAAA TCCTTTGTAG ATTAGGAGAG TACCAACAAG  
 - 924 AGCGAAAGAC ATCACTAAAC ACGAAGAGTG AAAGTGGAAA AAGAGAACTA  
 - 874 TCAAGACTTG ACTCGAAGAC CGGATTGTAC CCGGATGATT CGAAACAGGG  
 - 824 CGGTGCTGGT GCTGGTGCTG GTGGTTGGCT TTCTTGTTGT CTCTGTTTTT  
 - 774 CGGTGAAAAA TTGAGGTTAT TACTCTTTGT CATGTCAATT ATTTAGGTCA  
 - 724 TAGCTGTCCA AGAGACGCGA GACATTAGAC AAGGTAATTA CCGATTGTAT  
 - 674 CCTATATATT CCTATGTAAC GAAATTCAGA TACTACGTAA TCTTAATGTG  
 - 624 TCGATGGAAT GAAAAAATAA AGTATTCTGT AAATATTTTC TATATATTAT  
 - 574 TTAGCATATA TACGCTTTAT AAATTATAAA TTTGGTCCCT CCCAAATACA  
 - 524 TGAAAACAAT GTAGTGATAA AAAAAAACA AATTCTGTAT ATATGCTATT  
 - 474 TTTATAACAT AACAAGCATT TTTCTTAGTC GGTAAAATT TCAAGTGTTT  
 - 424 AATACTTTTA TATAATTATG AACGTAAGTT ATAATCTATG TTTTTTTTGG  
 - 374 TCAGTCCATT ATTGATTATT CCATTCACAC TATATGCAAC CTATATTCTT  
 - 324 CCTATGAAAC TTTTGATCGT GTGTAAATA ATAATACAAA TTTGATTTCA  
 - 274 TCTAATAGGT GGGTGGGGAC TCTCTAATTA CGTTCTTTGA CATCTACTCA  
 - 224 TCAACATTTG GCTAATCTTT CTAAAGGAAT TCCATCTACC GGTCATTTTT  
 - 174 GTTTAAATGC TCTCTTGTA CTAAAAGTCC GTACCAAAC TGTGTAATTT  
 - 124 CATTAAACAT TAATTATTTA GTCCATTCCA TGTCAAATAT GACTTCTATG  
 - 74 CTCTTGTCCT ATAAATTTTA AAGCAATGAG GATTCACCAA GTATACATGC  
 - 24 ATAACAAATT AAGAGCGAG -6  
  
 - 5 CAATAATG

Figure 9

Promoter 16

-1044 GTGAGAAAAT TCATGAGCAC TCTTAGAAAT GTAAATAGTT TGATTTGAAG  
 - 994 AAATGTGGTT TTTAAGAAGA TAATTGCAAA ACTCAGAAAG GATTTACAA  
 - 944 AAAACAATTC GTGAAATCTT TCCTGAATTT CGTAAAATCC TTTCTAAATT  
 - 894 TTAGAAAATT ATTATTTGAA TGATTTTACG AAATTCGGA AAGAATCTAT  
 - 844 AAAATTCAGG AAAGATATCA TAAAATTTAT GAAGAGTTAT ACACAACAAA  
 - 794 AAGAAATTTT TGAATTTTCAT GAAATCCTTC GTAATTGCTT ACATTCCTTC  
 - 744 CTAAATTTTG TAAAATTCCT CCTGGATTTT CTTTTCGAG AAAATAGGGG  
 - 694 CATATATTTT TTACGGGAAA TTTTTTGACG AAAACTTATT TTGGCGGAAA  
 - 644 AAATTGTCAG GAATTTTTGG TAATGAATAT GTGTATTTTT TTAATTGTTA  
 - 594 ATTTTAATAA TAAAATAAAA TAGTTATCTG AATGTTATTT ATGTCAAAAA  
 - 544 AAAATATGAA TGCTATTTTT GTCTTAAAAA CTTAAAATTG TACTATTTGA  
 - 494 AGGAATTTCA TTTTATTTTA TTAATGTGAT TAGATTTATA ATTAAATATA  
 - 444 ATTAAATGAT TGTAATAACT AACTTAAATT CTTATTTATA AACATAAAGT  
 - 394 AATATTTAAT TTTCTTTAAT TAAAAATACA TATTTTATTT TCATAATTTA  
 - 344 TTTTGCTTTT TTTTTTTTTT AGTTTGTGATT TATTTTAAA CATATAATAT  
 - 294 GAGTATATGA CTATATGACA TAGCATATTG GTTTATTTTG ATTAGATAGA  
 - 244 AAAAGAGACG GGTGAATAAA AGGGTTTAAT ACTATGGTGA ACCCAAGTAT  
 - 194 ATATCGTCCA TAACAAAAAC ACTATATAAT TGAGGTTTGT AGATTGTGCA  
 - 144 AACACGTGTG GGCATATCAG CTTGTAGGAT TGCCACATAC ATTATCATGA  
 - 94 GAAGCTTCCA CCAGAATAAA GCAAAACAAA AAACCTCCGAA AGCGGAGAGA  
 - 44 ACAAGGAAAA CTGAAAAACC ATTGTGAAGT ATAGTCCTTG ATGC -1

1 ATGGATT

Figure 10

Promoter 17

-1141 CAAACGAGGC TCCAAATTCA TATTCGGCCT GCATACTTTT GCCCTGGCCC  
-1091 GGTTTTTTTT TTTCTTTTTT TCGGTGTTTC ATAATACATC AGCTTCCATA  
-1041 ACTGGAGCAA CCGTTATAGA AAGACATGTA TAAGAACCCC AAAAAACAG  
- 991 GTACGTCAA AGAGGAAATT CTCATAACAT ACACAATATG CTCCTAATCA  
- 941 GCCATCGTGT TGTGCTGATC TCCTAGGTGA CATTATGTAT ATCTGTTTGA  
- 891 TATTTCTTTA ACACAACATG TTATCAGTTA CCCATCAAAA CGTAGTCAGC  
- 841 TTGAGGTCTT CCAAAAAAAT CCACACTAGA CCTTCCTTCA TCACTTCAAC  
- 791 AGACTTCAA CTTCTATCCC AAAAGGAAAA AACTAAATAA GTTGAAAGGA  
- 741 ATGGTCGAAG GCATGGGGAG ACACCTAATA CGGCAGCTAG ACTAATCCGG  
- 691 TGGATTGATA AGCAAACTCG AAACACTCTT TCCTCTATCA GATTATTGGG  
- 641 GGATAGGAGA TATGACAAAA GACTGCAAAAT GTGGTTTGCT TCTAGAAGTT  
- 591 AAGAGCTTCC GGGATTTTGT TTTTATTTT TTCAGTGTTG TAACAAATTT  
- 541 AAATTCTGTC GCACTTGTCG TAACAACGAT ATTTTTTCTT TGAATATAAT  
- 491 TTAACATTAA ATTAAAAAGA AAAACTAAAT AAATTATTTT GAAGTTAATA  
- 441 TATTATGTTA TTATCTTTGG TTTGCAATAA ATAGATCGAG TCAAGGTCGT  
- 391 TATATGACCA TTGTTTAGTT ACGACGCTAC TTCATACTTG GAATCTAAGG  
- 341 AGAAAAAATG TAACATAGTT CTCAGTACTT AATCACATAG TTCTCAGTTC  
- 291 TTAATCACTT TATTGTTAAA ACTTTTCATC GAATAATTAA TGATTTGATC  
- 241 TCCAATCTCA ATTAATTATA TATTTCTAAA GCCAAAAGAG ATAATGAAAG  
- 191 GAGAGGTGGT AGAAAGAAAA CGTTAATGTA TCAAACTCTA ATAAAAGAAA  
- 141 CTGCGTGTAT AGACACGAAG GCTCCGATCT TTTGCATGTC TCGCACGTGT  
- 91 CGTCCTCTTT CTTCTACTT AACACATATA TGCATGCACC CTTCTTAGAA  
- 41 AAGTAGCAAA ACATTGTGAA TCATCGGAGA GAGTGGGAAA C -1

1 ATGGAGA

Figure 11

Promoter 19

-1293 CACCAAGCCT ATACAAACAT AATTTAACGC CGCCTAGTTT TGTTTATTCT  
 -1243 GCACGTAACA TATAAAGCTA ACAGATATGC GACAAAATAT CTATAAATTA  
 -1193 CATATATAAG TATATATAAT ATAAGAATGT TGGATGTATA TATTAGTAGT  
 -1143 TTAATCAATG AAAATATATC TTTATATCTT TATTAAAAAA ACTAAAAATG  
 -1093 TATCTTTATA TACATTTTCGT AGTTTAAAAT CAAAATTCAA GATAGAGCGA  
 -1043 AAATGATTTT TTTTTTTTTT AATGAACCAA AAGTACAACA TTCCTACCTT  
 - 993 TATTTTTAAT AACTCGTTTA TATTCGCCAA TCAGACACAC ACATAGACTT  
 - 943 TTAAAATAGT AAAAGTAACT TAGCCGATTA TTTATGTAAA ATATTCGTAT  
 - 893 AAAATTTTTT TTAACAAATA TATTTGATTT CTCATCTTAT AACCTGTTTA  
 - 843 TTGATCAGAT TACACGAAAA AATAACTAAA CAGATAAATT TACTCGAACT  
 - 793 GCATACAATA GAGATGTATT TGTGCATGAG TGTAGCCCAA AAATGTGTAA  
 - 743 GGAAATAACA CCCATTGGTA GGCCGAGACA TGCCTGTACC ATGGCCGCTG  
 - 693 AAATAGTAGA AGAACCAAAT ACCTACCAA GTACTCTTAA GCTAACGTTG  
 - 643 ACATGATTTA ATTAGATTAA CGATTGAGTA AACGACAAAT TAGCGCTTTC  
 - 593 GTTTTATATT AAAGACGCAC GATATTTAAA TGGCAACTAT ACATTAAAAT  
 - 543 TATATAAAAT ATATAACTAT AACCAATTTG ATAAATGAGA AAAATGTACG  
 - 493 ATATGTCGTA CCACTCCATC CTGACTATGA CTTATGGAGG AAGTCAATGC  
 - 443 TTATCAACTA CTTGCTTATC AATATCCTAT TTATCACTAT CAGTTTTTCT  
 - 393 CTTTTCTATA CATATATTAT TTCCTATAGA TCATGTTGGT CATAATGTAA  
 - 343 TCAACTTAAA ATTTAAGATC TACTAGTTTG TGTTGAAGTA TAACTGTATA  
 - 293 AGCCTAAATT CGAACGTTAG TCTGACTTAA TAGTTAATTC CATTTTGTTT  
 - 243 TGGGTAAATG TTTCAGTTTC ACTGCTGTTT GGAAAATCTT TGGACAGATA  
 - 193 TTGAGATTGG GCTTATAATA TTTATTATTG GGCCTTAATT TAAGAGCCCT  
 - 143 TTTATAGGCA GATACAAAAA CGACGGCGTT TAACTCATCC GCTCAGCGAC  
 - 93 TTCCACATAG CCGTTAAAC GATGATAATA AACCCAATCC GGTTTCATCTC  
 - 43 CAACAGAAGA ACGTAATAAC TGATGCTTGT CTTCAAGTCA AC -2  
  
 - 1 CATGGAGT

Figure 12

FOOT 6503660

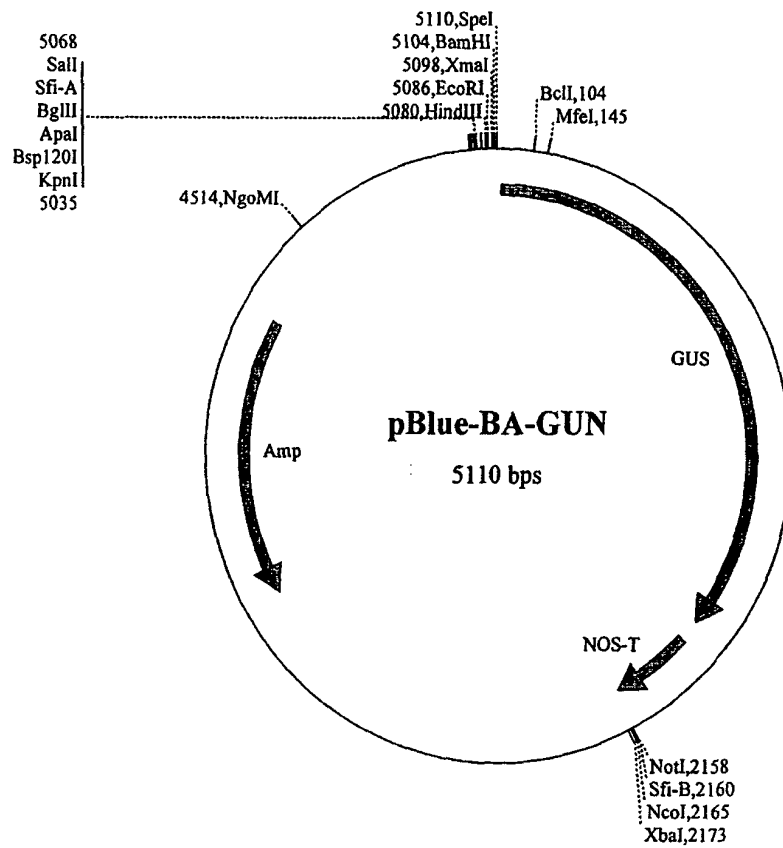


Figure 13

TOGETHER 65086660

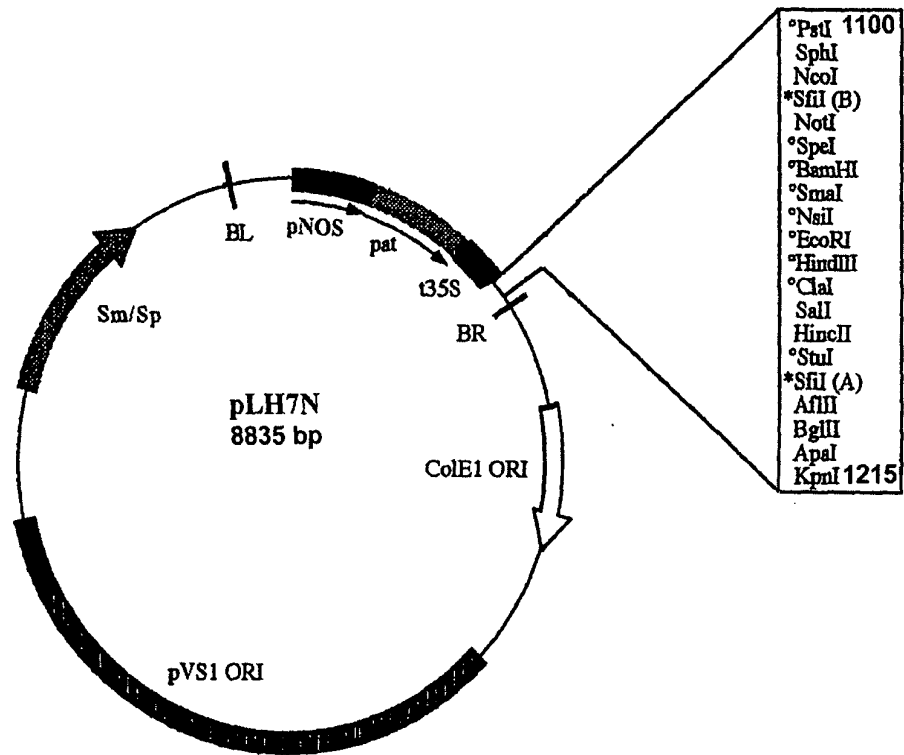


Figure 14

Promoter 6 :

**GATCTCTCCCGAAGAAG**

CTAAACGAGTAAAGTTTAGCACGATTGAGACCACACTGACCCATAGCAGTCCAATGAGC  
TACGGAAGGCCTAGGGCTTGAGGCTTGATGAGCGCGTGGTGGAATAGCGTTTGAATCTA  
AAGTTCGGTTTGGTACGACTTGTAATATGAAATAATAATGTACAAAGAAGTTCTACGCT  
TAAGGGAAGTGTGTTTGTGTTTGTGTTTGTATTAGGACGTCTAGTGTACAACAACGAACG  
TCGTGTATAAGCGATCGTTGACTCTGCACATGTAACTCTTTCCTGAATAAAAAATCTTT  
AAGTCTTTAATTTCTACATCTTTTAGGATTATATAAACGTTACTATATAAATAAAAAAG  
AAAAAAAATCAGTTCACTAACATGCGAGACTTTGGGCTAAATATAGTG**ATTCCAAAGA**  
**AAATGAGTTATAATATTAATTAATATAAAGTCAATTTCTTTTGAAT**TATCGTTATAAGA  
ATATTTTAACTTGGATATAACTGGGCTTACGCCATTTGCATCTCGAGGATTTTTTGT  
TTGTTTTTGTGTTTTTTAATACATTCTCGCACTTACACACTAAAAATCATAATGATCTTC  
TTAATTCCTTTAGCGGAACCACCAATTAATCTTTTTATTAAAGAACTTTATTACTTATTT  
ACTTATTTGTGCATACGTGCATTATTTTGGCAGTAACAAATATCGCGTTATATATACTG  
AAATCCGGACGCATTAATAATAGGGATATGATTATATGAACCACTATCTAGCTTTGGTA  
GAAACCAATTATAATCAAATAATTTACCATATTGAATAAATTAGGCTATATAAGTTC  
ATTAATAGATGCTATAGGTTTTTCTTACAAGGCACACATTTGATTGTTATTTTCTTTCA  
TATACACTGAATGTACATGTGTACACTTGGCATAACATGGCAAGATTATGTGTTACAATA  
TAGACTGTGCCATTGCCATGCAATGTGACTCCTGTGGCCATTTCTATCACAAATGTGTCA  
ATCTTGGAGTATCCGTTGTTTATCCTCTAATTTACTGATTAATTTATGAACATGTATAA  
TTATTTATATCATATGATCTCGTAAGATATCTTAGCATTTTCCACCATATGTTATTAGT  
AAATCATCTAGATGGATTGATGTAAATAGGAAAGTTAAATTAACACACCAAAAAAGTAA  
CTGATTAAAAGCATAACAACCTTAATATTAGATTATGGTAACTAAATCAGTCTCATGCAA  
ACTCCAAAAAATTATACGAGTCACAACCTTTGATTTTTTTCCGGTTAAACAAAATACAT  
ATTTTCATTTGTATGCAACCAGAAATAAACACTAACTATCTCCTTTAAATACCATTTTC  
CCTACGAGTCTACGACGCTCTCTAAACTTCTTATACAAAACAAAACACACCC

AAATATG

Query: 1 ATTCCAAAGAAAATGAGTTATAATATTAATTAATATAA-AGCTCATTTTCTTTGGAAT 57  
|||||  
Sbjct: 57 ATTCCAAAGAAAATGAGCTTTA-TATTAATTAATATTATAACTCATTTTCTTTGGAAT 1

Figure 15

**Promoter 14 :**

CATCTCTGCAAATCAAACCTTATTATTAAGCTACATTTACATAGTGTCTTATAATTCT  
CATGACATAGCAACATTATTAAACGACAACCTTTCTAGCTTCATTTAAATGGAAAATCA  
CATAACACTCACATTAACATACTAACAATAACACTCACATTACCGACTAGCATATAAAT  
GGATATTGATATAACAATAATCCCCCAAATTTATGTCTATTTTGTTTCATTATGCAAATG  
TCCCAAATGATATATCTTGAAAGTACTAACCGGAGACGAGGGTCGAGGTATAGAAGT  
GATTTGGTTCGAACCGAAATGAGGAACCCGGGTTTGGACACCAGGAGCATTTTGGTAATC  
ATCCAAATCAGGGTCATAGTACAACATCATTCGATCGCTGAAGCACCTGGTGAAGGGAG  
ACAATAACACTGCTGCATCGAACCATAGCCTAAACCATCCACCACTCTTCTTATGAATC  
GGATATAACCAGCTGCTACACCAGACACTACTTGGCTTGTATTCTCTGTCCAGCCGTAC  
CTCTAGCTGGTTACCTCCGTTTCTTGAACCGAATCAAAGGGTACACGTTGCTACCCA  
CAGCTTGACACATCGAGGTCATCGTCACCACAACGAGTATCGCTATGACTACCGAATAA  
TGTGAAGATATTTTTTTCATTTTCGTTCTAAGAAACAGACTCTCATGGTCATGGATCTA  
TGCAGAAAGCTGGAGATTTGAAGAAAAAGGTCCATTGAATTTGAAAAACAGAGTAGTAT  
CTTAAAACGTAAGGCTTAAGATAAGTAGTATATGGTGGATATGGAACCCGCGTAATCAT  
CTAGAGGCTCTACAAATATTTATTTTGTATTTCTTCTTATTTTGTATTTGCCTACGTG  
GCATTATACAACGTATTTAACTTGAAACCAGATTTATGGCCC  
AATGGGTCGGGTCGACCCGACCGATT  
CGAATCGATT  
TTAAACTGCGCTCCTAACTAAAAAAAGTCAAACCCCTTTGAAAAACCTA  
AAAACGCAATTTGCTTCGTCTCTCATCTCTTTCTCTTTCTCCG

TCGCCACCATGTTTGAGTACCGGTGCAGCTC

Query: 1 AATGGGTCGGGTCGACCCGACCGATT 26  
||| |||||  
Sbjct: 26 AATCGGTCGGGTCGACCCGACCCATT 1

**Figure 16**



# Promoter 16 :

AGGGACTAGGAACTTAAGAAAAACAAAGTCATCAAAAAACAAAAAAAAGTT

GTGAGAAAATTCATGAGCACTCTTAGAAATGTAAATAGTTTGATTTGAAGAAATGTGGT  
TTTTAAGAAGATAATTGCAAACTCAGAAAGGATTTACAAAAACAATTTCGTTGAAATC  
TTTCCTGAATTTTCGTAAAATCCTTTCTAAATTTTAGAAAAATTATTTTGAATGATTT  
ACGAAATTTTCGGAAAGAATCTATAAAAATTCAGGAAAGATATCAATAAAATTTATGAAGAG  
TTATACACAACAAAAAGAAATTTTGAATTTTCATGAAATCCTTCGTAATTGCTTACATT  
CCTTCCTAAATTTTGTAAAATTTCTCCTGGATTTTCTTTTGCGAGAAAATAGGGGCATA  
TATTTTTTACGGGAAATTTTTTGACGAAACTTATTTTGGCGGAAAAAATTGTCAGGAA  
TTTTTGGTAATGAATATGTGTATTTTTTAAATTGTTAATTTTAATAATAAAATAAAATA  
GTTATCTGAATGTTATTTATGTCAAAAAAATATGAATGCTATTTTTGTCTTAAAAAC  
TTAAAATTGTACTATTTGAAGGAATTTTCAATTTTATTTTATTAATGTGATTAGATTTATA  
ATTAATATAATTAATGATTGTAAATACTAACTTAAATTTCTTATTTATAAACATAAAG  
TAATATTTAATTTTCTTTAATTAATAATACATATTTTATTTTCATAATTTATTTTGCTT  
TTTTTTTTTTTTAGTTTGTATTTTATTTTAAACATATAATATGAGTATATGACTATATG  
ACATAGCATATTGGTTTATTTTATTAGATAGAAAAAGAGACGGGTGAATAAAAGGGTT  
TAATACTATGGTGAACCCAAGTATATATCGTCCATAACAAAAACACTATATAATTGAGG  
TTTGTAGATTGTGCAACACGTGTGGGCATATCAGCTTGTAGGATTGCCACATACATTA  
TCATGAGAAGCTTCCACCAGAATAAAGCAAAACAAAAAACTCCGAAAGCGGAGAGAACA  
AGGAAAACCTGAAAAACCATTGTGAAGTATAGTCCTTGATGC

ATGGATTCAATCAACAAGATCATCAACTTCTTGTTTCCTCTCT

Query: 1 TGAAATCTTTCCTGAATTTTCGTAAAATCCTTTCTAAATTTTAGAAAAATTATTATTTGAAT 60  
||| ||||| ||||| || || || || ||||| ||||| ||| |||  
Sbjct: 109 TGATATCTTTCCTGAATTTTATAGATTCTTTCGAAATTTTCGTAAAATCATTCAAATAAT 50

Query: 61 GATTTTACGAAATTTTCGGAAAGAATCTATAAAATTCAGGAAAGATATCA 109  
||||| ||||| || || || || || ||||| ||||| |||  
Sbjct: 49 AATTTTCTAAAATTTAGAAAGGATTTTACGAAATTCAGGAAAGATTTCA 1

Figure 17

### Table 2. Selected Seed-Specific Genes

The selected ESTs and their predicted protein sequences were blasted against protein and DNA sequence databases of NCBI, to identify a possible function of each gene and its corresponding *Arabidopsis* genome sequence.

ID	Description based on BLAST search of EST	Expression Ratio	Clone ID	Accession Number of Genomic Clone	BLAST Alignment of EST to Genomic Sequence	
1	12S Cruciferin	49.9	<u>M30C01</u>	AL021749	13---283 65745---66103	
2	12S seed storage protein	78.8	<u>M29F06</u>	AB005239	191---399 15999---15804	
3	2S SEED STORAGE PROTEIN 3 PRECURSOR	41.5	<u>M09C04</u>	AL035680	8---369 32165---32525	
4	vicilin precursor	19.1	<u>M60B08</u>	AB022223	17---400 2559---2943	
5	similarity to vicilin (7S globulin)	17.3	<u>M51A09</u>	Z99708	15---328 69093---69460	327---399 69490---69563
6	12S seed storage protein	23.4	<u>M19H03</u>	AC003027	34---220 67515---67329	218---400 67229---67048
7	2S SEED STORAGE PROTEIN 1 PRECURSOR	60.0	<u>M52E11</u>	AL035680	22---380 27709---28066	
8	Unknown gene Laccase-like (diphenol oxidase)	11.6	<u>M18A04</u>	AB017064	24---150 66806---66680	148---371 66193---65973
9	Unknown protein Arabidopsis	37.2	<u>M42C12</u>	AC000375	16---399 8408---8025	
10	unknown protein	29.7	<u>M20H04</u>	AC004392	25---390 90414---90780	
11	Putative pyruvate kinase	69.2	<u>M36D01</u>	AB009055	32---374 68629---68966	
12	pyruvate dehydrogenase E1 alpha subunit	27.5	<u>M15B07</u>	AC007323	3---373 48490---48120	
13	Similar to nucleoid DNA-binding protein, aspartic proteinase, and pepsinogen A precursor	7.0	<u>M42A08</u>	AB026658	28---393 68590---68226	
14	A large hypothetical protein	8.6	<u>M40D09</u>	AC004557	18---393 82725---82350	
15	germin-like protein (oxalate oxidase), similar to auxin-binding protein, plant only	42.1	<u>M31F10</u>	AB010694	13---400 18058---17673	
16	Similar to 11beta-hydroxysteroid dehydrogenase, oxidoreductase	39.3	<u>M13A03</u>	AB023037	9---201 52852---52660 395---426 52096---52065	199---388 52589---52400

**Figure 18a**

[illegible]

ID	Description based on BLAST search of EST	Expression Ratio	Clone ID	Accession Number of Genomic Clone	BLAST Alignment of EST to Genomic Sequence	
17	putative seed storage protein (vicilin-like)	19.0	<u>M32C09</u>	AC006587	23---161 14510---14372 342---400 14033---13975	158---341 14289---14106
18	Lipoxygenase-like protein	16.8	<u>M30E03</u>	AB022215	21---99 47943---48021	96---308 48768---48978
19	Unknown gene, some similarity to selenium-binding protein-like gene	31.8	<u>M55E09</u>	AC002387	26---90 73712---73648 245---400 73308---73153	89---244 72555---73400
20	Cytochrome P450-like protein	25.4	<u>M32E09</u>	AB007648	21---394 16931---16559	

### Figure 18b

**Table 3. Primers for the PCR amplification of 12 promoter regions**

name	sequence	position	REs	T(°C)	Length 1	Length2
1R	CACT GGATCC TTTTGTGTTGTGAGAGATG (SEQ ID NO: 31)	best+3	Bam	48	23	32
1F	CACT GAATTC ACAACATACACTCAAAATC (SEQ ID NO: 32)	best	Eco	48	21	30
3R	CACT GGATCC GTTTGCTATTGTGTATGTTTC (SEQ ID NO: 33)	best+0	Bam	48	24	34
3F	CACT GAATTC AAGAGTGTAACACGTAC (SEQ ID NO: 34)	best	Eco	48	18	27
4R2	CACT GGATC C TTGTGTGTTTGTGATGTGTT (SEQ ID NO: 35)	best+5	Bam	48	22	31
4F2	CACT GAATT C CATGTGTTACACGTC (SEQ ID NO: 36)	best	Eco	48	16	25
6R	CACT GGATCC GGGTGTGTTTGTGTTGTATAAG (SEQ ID NO: 37)	best+4	Bam	52	23	33
6F	CACT GAATT C TAAACGAGTAAAGTTAGCAC (SEQ ID NO: 38)	best	Eco	52	22	31
7R	CACT GGATC C TATGTGTGATGTTTGGTTC (SEQ ID NO: 39)	best+6	Bam	52	22	31

**Figure 19a**

name	sequence	position	REs	T(°C)	Length 1	Length2
7F	CACT GAA TTC GATCCGAAAAGTAGAGTTTC (SEQ ID NO: 40)	best	Eco	52	20	30
9R2	CACT GGATC C TTTTGATTTTTTGGATTAGATTGTTGTGGT (SEQ ID NO: 41)	nb+0	Bam	52	34	43
9F	CACT GAAT TC AGAAAGAGAAAGTGAGC (SEQ ID NO: 42)	best	Eco	52	18	26
13R	CACT GGA TCC GGC GAAGGTTGATA TGA (SEQ ID NO: 43)	best+4	Bam	60	20	27
13F	CACT CAAT TG ACACGCAACCAACCAAGC (SEQ ID NO: 44)	best	Mfe	60	20	28
14R	CACT GGATC C GGAGAAAAGAGAAAGAGAT (SEQ ID NO: 45)	best+8	Bam	52	19	28
14F	CACT GAA TT C ATCTCTGC AAAATCAAACC (SEQ ID NO: 46)	best	Eco	52	19	28
15R	CACT GGATC C TCGCTCTTAATTGTTATGC (SEQ ID NO: 47)	best+5	Bam	52	21	30
15F	CACT CAATT G TAAGTCGTTCTCTAATCTTC (SEQ ID NO: 48)	best	Mfe	52	21	30
16R	CACT GGATCC GCATCAAGGACTATACTTCAC (SEQ ID NO: 49)	best+0	Bam	56	21	31

Figure 19b

name	sequence	position	REs	T(°C)	Length 1	Length2
16F	CACT GAATTC GTGAGAAATTCAIGAGCACTC (SEQ ID NO: 50)	best	Eco	56	22	32
17R	CACT GGATCC GTTTCCTCACTCTCTCC (SEQ ID NO: 51)	best+0	Bam	56	16	26
17F	CACT GAATT C AAACGAGGCTCCAAATTC (SEQ ID NO: 52)	best	Eco	56	19	28
19R	CACT GGATCC GTTGACTTGAAGACAAGC (SEQ ID NO: 53)	best+1	Bam	52	18	28
19F	CACT GAATT C ACCAAGCCTATACAAAC (SEQ ID NO: 54)	best	Eco	52	18	27

Position: Distance from the best position ( for reverse primers, it is ATG )

REs : Restriction enzyme sites included

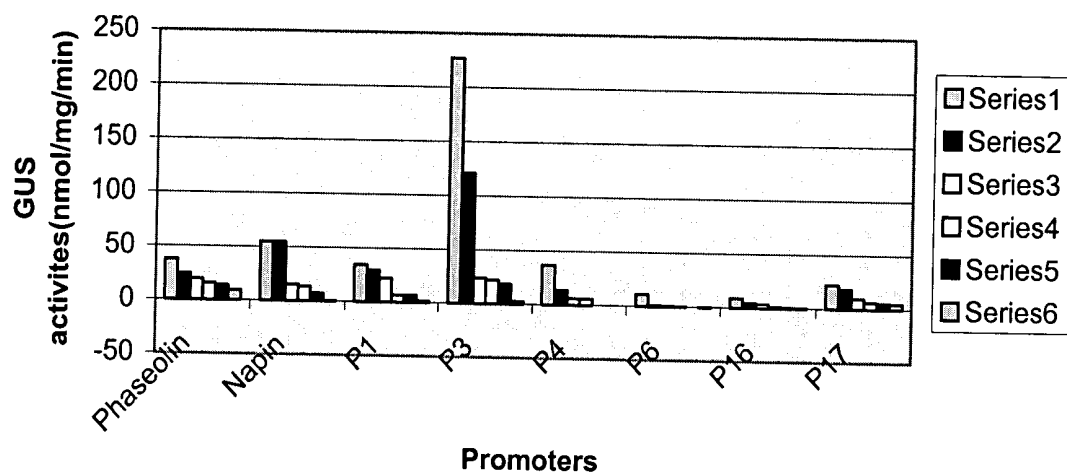
T(°C): Annealing temperature

Length 1: Length of the sequences exist in genomic sequences

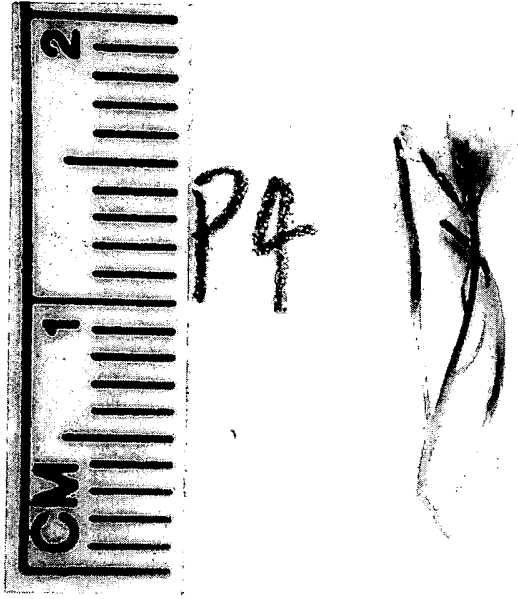
Length 2: Full length

Figure 19c

Figure 20



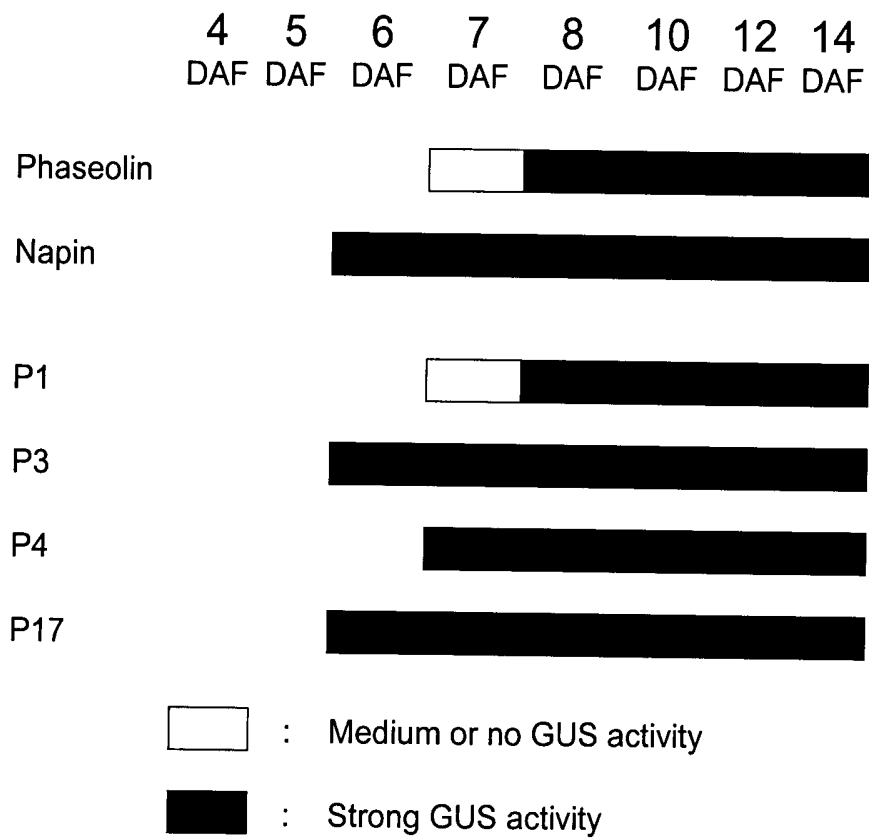
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**Figure 21**



# Figure 22



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